

**WHAT IS CLAIMED IS:**

1. An electrical connector assembly comprising:

a receptacle;

a first ground plane partitioning the receptacle;

a plug configured to mate with said receptacle; and

a second ground plane partitioning said plug;

wherein each of said first and second ground planes are in mechanical and electrical contact with one another when said plug is mated to said receptacle.

2. An electrical connector assembly in accordance with claim 1 wherein said first ground plane partitions said receptacle into two substantially equal halves.

3. An electrical connector assembly in accordance with claim 1 wherein said second ground plane partitions said plug into two substantially equal halves.

4. An electrical connector assembly in accordance with claim 1 wherein said first ground plane and said second ground plane are inverted relative to one another.

5. An electrical connector assembly in accordance with claim 1 wherein said first and second ground planes comprise hermaphroditic surfaces.

6. An electrical connector assembly in accordance with claim 1 further comprising a conductive shell surrounding at least one of said plug and said receptacle, wherein at least one of said first and second ground planes is electrically connected to said shell.

7. An electrical connector assembly in accordance with claim 1 wherein each of said plug and said receptacle comprise a conductive shell and said first and

second ground planes each comprise a slot therein, said slots of said ground planes fitted into a respective slot in each of said plug and said receptacle, thereby electrically connecting each of said first and second ground planes to a respective one of said shells.

8. An electrical connector in accordance with claim 1 wherein each of said first and second ground planes comprise a ribbed surface, said ribbed surfaces of each of said first and second ground planes mechanically and electrically engaging each other when said plug is mated to said receptacle.

9. An electrical connector in accordance with claim 1 wherein each of said first and second ground planes comprises a ribbed surface, said ribbed surfaces of said first and second ground planes engaging one another when said plug and said receptacle are mated.

10. An electrical connector in accordance with claim 1 wherein each of said ground planes are configured for connection to a circuit board.

11. An electrical connector in accordance with claim 1 wherein each of said plug and receptacle comprises a conductive shell and said first and second ground plane comprises a hook, said hooks of said first and second ground planes received over an edge of said shell to establish electrical connection thereto.

12. An electrical connector assembly comprising:

a receptacle comprising a first shell, a receptacle insert received in said first shell, and a first ground plane extending through a center of said receptacle insert, said first ground plane configured for connection to a circuit board on one end and having a plug engagement surface; and

a plug comprising a second shell, a plug insert received in said second shell, and a second ground plane extending through a center of said plug, said second

ground plane configured for connection to a circuit board on one end and having a receptacle engagement surface;

wherein said plug is configured to mate with said receptacle, thereby mechanically and electrically engaging said plug engagement surface to said receptacle engagement surface.

13. An electrical connector in accordance with claim 12 wherein one of plug engagement surface and receptacle engagement surface comprises ribs projecting therefrom, the other of said plug engagement surface and said receptacle engagement surface comprising grooves extending therein, said ribs fitted within said grooves when said plug is mated with said receptacle.

14. An electrical connector in accordance with claim 12 wherein each of said first and second ground planes is electrically connected to one of said first and second shell.

15. An electrical connector in accordance with claim 12 wherein one of said first and second ground plane is mechanically and electrically connected to a respective one of said first and second shell.

16. An electrical connector comprising:

a plug and a receptacle configured for mating engagement with one another;

a ground plane substantially centered within each of said plug and receptacle, said ground planes of said plug and said receptacle comprising hermaphroditic surfaces mechanically and electrically engaging one another when said plug and said receptacle are mated; and

at least one of said ground planes mechanically and electrically connected to a conductive shell.

17. An electrical connector in accordance with claim 16 wherein each of said ground planes are electrically connected to a conductive shell.

18. An electrical connector in accordance with claim 16 wherein said hermaphroditic surfaces comprise a series of alternating ribs and grooves.

19. An electrical connector in accordance with claim 1 wherein said first ground plane and said second ground plane are configured for wiping contact with one another.